

# Invasive Lionfish Diet Could Impact Native Coral Reef Fishes

—National Oceanic and Atmospheric Administration



*The beauty of lionfish makes them very popular in the aquarium trade, and their introduction into Atlantic waters was likely due to release from private aquaria.*

Lionfish are uninvited visitors in Atlantic waters. Now, research suggests that the diet of these invasive fish could impact the distribution of other fish living in Bahamian coral reefs.

The National Centers for Coastal Ocean Science and the Reef Environmental Education Foundation conducted a comprehensive study on what lionfish eat in Bahamian coral reef environments. Scientists found that lionfish feed upon a wide diversity of reef-associated species. Adult lionfish feed almost exclusively on fish, while juvenile lionfish feed mainly on crustaceans.

The diverse diet of lionfish included over 40 species of fish, suggesting that lionfish are flexible predators potentially capable of reducing the abundance of a wide variety of native reef-associated fishes. The economically important species Nassau grouper and yellowtail snapper were found in the lionfish diet, although in low frequency compared with non-economically important species. However, these non-economically important species are food for snappers and groupers, as well as important members of reef ecosystems in that they eat algae and other plants that can overwhelm the reefs if they're not cleaned off frequently.



*Researcher Mark Albins documents a lionfish in the Bahamas.*

Lionfish are native to the Indo-Pacific and Red Sea, but are now established along the eastern coast of the United States, from Florida to North Carolina. They are also regularly found throughout the Bahamas and northern Caribbean and have been sighted as far south as Nicaragua and as far east as the U.S. Virgin Islands.

Since lionfish are not native to Atlantic waters, they have very few predators, yet they themselves are voracious predators. How exactly lionfish will affect native fish populations and commercial fishing industries has yet to be determined. However, given their population explosion and aggressive behavior, lionfish have the potential to become the most disastrous marine invasion in history by drastically reducing the abundance of coral reef fishes and leaving behind a devastated ecosystem. Studies such as this one are helping scientists better understand the role of lionfish within, and their potential threat to, Atlantic Ocean ecosystems.

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